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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/269,148	07/06/2001	Thomas Hopf	247,1004	9511
20311	7590	07/17/2008		
LUCAS & MERCANTI, LLP			EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/269,148	Applicant(s) HOPF ET AL.
	Examiner Eric S. McCall	Art Unit 2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

Status

- 1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-7 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 12 March 1999 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No./Mail Date 3/12/99 & 7/26/01
- 4) Interview Summary (PTO-413)
 Paper No./Mail Date _____
 5) Notice of Informal Patent Application
 6) Other: _____

METHOD FOR THE DETERMINATION OF
COMBUSTION MISFIRES

FIRST OFFICE ACTION

CLAIMS

35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

Claim 1, the phrase “wherein at least two successive compression times and expansion times are determined for at least one cylinder of the internal combustion engine” is indefinite as

to the meaning of compression times and expansion times. The terminology of compression strokes and expansion strokes are well known in the art but it is not clear as to what defines the Applicant's compression times and expansion times.

Claims 2 and 6, the terms "predeterminable parameters" and "predeterminable ambient parameters" are indefinite as to the meaning thereof.

Claim 4 sets forth a broad range (at least one combustion misfire) together with a narrow range (a predeterminable number of combustion misfires) that falls within the broad range that is indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

Claim 7 sets forth a broad range (a vehicle) together with a narrow range (a passenger vehicle) that falls within the broad range that is indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Denz (5,144,927).

With respect to claim 1, Denz sets forth a method for the determination of combustion misfires in an internal combustion engine having a plurality of cylinders, wherein at least two successive compression times and expansion times are determined for at least one cylinder of the internal combustion engine, wherein for the determination of combustion misfires, a comparison of the change in the compression times with the change in the expansion times being carried out, and the result of the comparison being a measure of a combustion misfire (abstract).

With respect to claim 2, Denz suggests that the method is carried out as function of predeterminable parameters (such as compression angular segments and expansion angular segments) of the internal combustion engine as claimed.

With respect to claim 3, Denz suggests that the method is carried out for each cylinder of the internal combustion engine (col. 4, lines 40-58).

With respect to claim 4, it is inherent in the Denz teaching that after the detection of a predetermined number of combustion misfires (such as one misfire), a fault signal would be generated and emitted.

With respect to claim 5, Denz suggests that a threshold value for the measure of a combustion misfire is formed as a function of a parameter of the internal combustion engine and that no fault signal may be generated based on the comparison between the result and the threshold value (col. 5, lines 8-42).

With respect to claim 6, Denz suggests that the method is not carried out in the case of a deviation from permissible value ranges for the predetermined parameters of the internal combustion engine.

With respect to claim 7, Denz suggests that the taught method is used in an on-board diagnostic device for the internal combustion engine.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Eric S. McCall/
Primary Examiner
Art Unit 2855